

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-21. (Cancelled).

22. (New) A wood-polymer composite, comprising wood impregnated with polymerizable monomers selected from the group consisting of styrene, methylstyrene and tertiary butylstyrene that have been polymerized in the wood, the polymerization being initiated with at least three initiators; said monomers being crosslinked with divinyl benzene, ethylene glycol dimethacrylate, 1,3-butylene glycol dimethacrylate, ethylene glycol trimethacrylate or trimethylol propane trimethacrylate and said composite containing oil or wax as a polymerization moderator and water repellent for the composite.

23. (New) The wood-polymer composite according to claim 22, wherein said monomers are styrene, para-methyl styrene, tertiary butylstyrene and combinations thereof.

24. (New) The wood-polymer composite according to claim 22, wherein said three initiators are at least one low temperature initiator selected from the group consisting of 2,2'-azobis (2-methyl-butanenitrile), benzoyl peroxide, 2,2'-azobis(2,4-dimethyl-pentanenitrile), and 2,2'-azobis (2-methyl-propanenitrile); at least one medium temperature initiator selected from the group consisting of 1,1'-azobis (cyclohexane-carbonitrile) and 1,1'-azobis (cyanocyclohexane-carbonitrile); and at least

one high temperature initiator selected from the group consisting of tertiary butyl perbenzoate and di-tertiary butyl peroxide.

25. (New) The wood-polymer composite according to claim 22, wherein said polymerizable monomers present in the composite as polymerized monomers are distributed throughout the whole of said composite.

26. (New) The wood-polymer composite according to claim 22, wherein said polymerizable monomers present in the composite as polymerized monomers are distributed within a shell that extends from a depth of 2mm below exterior surfaces of the composite to a deeper depth.

27. (New) The wood-polymer composite according to claim 22, wherein said composite containing said polymerized monomers has a density of from about 0,8 g/cc to about 1,2 g/cc.

28. (New) The wood-polymer composite according to claim 22, wherein said composite before being impregnated with said polymerizable monomers has an average moisture content from about 3 to about 90% and after being impregnated with said polymerizable monomers has an average moisture content of from about 0 to 50%.

29. (New) The wood-polymer composite according to claim 22, wherein said composite is a round, sawn or laminated wood product.

30. (New) The wood-polymer composite according to claim 29, wherein the wood product is a railway sleeper.

31. (New) The wood-polymer composite according to claim 29, wherein the wood product is a pole.